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Some evidence from Dutch and Classical Greek

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0. INTRODUCTION*

In this paper I will deal with a number of problems connected with conditional and temporal clauses; these clauses are taken together because intuitively they would seem to share a number of features. Section 1 is devoted to the pragmatic status of these clauses, the main question being whether conditional and temporal clauses should be analysed as Themes. This question will be illustrated with material that is chiefly taken from Dutch and Classical Greek. In section 2 the semantic characteristics of conditional and temporal clauses in Classical Greek are discussed, to give an insight into the rather complex system of these clauses and to establish the number of operators needed to adequately cover these clauses within the framework of Functional Grammar. In section 3 an attempt is made to give a formal representation of our clauses in FG-terms. Finally, section 4 consists of a general conclusion.

1. THE PRAGMATIC STATUS OF CONDITIONAL AND TEMPORAL CLAUSES

In recent years a number of proposals have been made to the effect that 'conditionals', i.e. conditional clauses, have what in Functional Grammar terms would be called Theme function. In some of these proposals, admittedly, other terms are used, notably Topic, but the features assigned to these topics make clear that they are, indeed, Themes in FG terms. As an example consider the following sentence from Usan (a language of New Guinea) and the treatment thereof in Reesink (1983: 237):

- (1) $\overbrace{[\text{wau} \quad \text{e-}\hat{\text{a}}\text{b} \quad \text{igo-r-iner}]}^{\text{RC}} \quad \text{e-ng} \quad]_{\text{CONDITION}} \quad \text{unor} \quad \text{m}\hat{\text{a}}\text{n}\hat{\text{i}}$
 child cry-SS be-?-3s.UF this-given mother yam
 u-t-ib- $\hat{\text{a}}$
 him-give-sg.Fut.-3s.

'If the child is crying, his mother will give him yam'

(Note: SS = same subject, UF = uncertain future, RC = relative clause; it is not altogether clear why Reesink calls the first part of the sentence a relative clause, but this will not bother us here). The interesting element is e-ng; this is a deictic operator, which may modify simple nouns, nouns expanded by a restrictor, and also, as (1) shows, subordinate clause-like structures. For an example of e-ng with a simple noun compare (Reesink 1983: 228):¹

- (2) munon e-ng wonou man soan is-orei
 man this-givenTHEME his garden landslide go.down3sFP
 ('As for this man, his garden went down in a landslide')²

(FP = far past)

A similar proposal concerning conditional clauses had been made by Haiman (1978), also in connection with a New Guinea language. There, too, the Topic (= Theme) status is formally indicated. Interestingly, Reesink adds that other subordinate clauses receive the same formal marking, e.g. temporal and reason-clauses. E.g.:

- (3) $\left[\begin{array}{c} \text{RC} \\ \text{worom isu-or} \end{array} \right] \text{e-ng} \left[\text{TEMPORAL} \right] \text{ginam âib is-omei}$
 sun go.down-3s.PF this-given place big go.down-1s.FP
 ('When the sun went down, I went down to town')

Usan, then, is a language where 'conditionals' and 'temporals' to all appearances are explicitly marked as Themes. It must be asked, of course, whether conditionals and temporals in general should be considered as Themes, even if a formal signal of this status is absent. If one assumes, however, that Theme is involved, as I do, then some interesting problems arise for the theory of FG, concerning notably satellites and LIPOC (the Language Independent Preferred Order of Constituents), specifically what may be called the 'increasing complexity

hierarchy'.

The pragmatic function Theme is defined by Dik (1978: 139) as follows: '(it) presents a domain or universe of discourse with respect to which it is relevant to pronounce the following predication'. The examples given by him, and indeed by many subsequent FG authors, to illustrate Theme all contain an NP, the standard examples being As for John ..., and As for Paris ... To these, Bossuyt (1985: 24) adds time constituents like in the same year, in spring, noting that 'time and place constituents are very likely to be selected as Themes'. This sounds plausible enough; but then there is no a priori reason why time constituents that consist of a state of affairs, and, more important in the present connection, conditional constituents that consist of a state of affairs, should be excluded from taking Theme position. As for conditionals, at least one definition tallies very well with the definition of Theme presented by Dik, viz. that of Ducrot, which is adopted here too. It runs (Ducrot 1972: 167):

- (4) (la supposition) consiste à demander à l'auditeur d'accepter pour un temps une certaine proposition 'p' qui devient, provisoirement, le cadre du discours, et notamment de la proposition principale, 'q'.

A similar definition may be found in Ramsey (1978: 143): 'If two people are arguing 'If p, will q?' and are in doubt as to p, they are adding p hypothetically to their stock of knowledge and arguing on this basis about q'. Conditionals, then, may be termed 'provisional Themes': they introduce a possible world as the universe of discourse.³ By the same token, non-conditional clauses, e.g. temporal ones, may be considered to present a universe of discourse in the actual world, differing from conditional clauses in that their content is presupposed rather than supposed (I will come back to this later). If conditional and temporal clauses function, or may function, as Themes, they

may be expected to have at least the following syntactic characteristics (cf. Dik 1978: 134):

- (i) they have sentence-initial position;
- (ii) they fall outside the predication proper;
- (iii) a feature connected with (ii), the predication following the Theme clause can have the full range of performative modalities such as declarative, imperative, and interrogative; also - this feature is not mentioned by Dik - question-words usually do not dominate the Theme (they go, typically, to the P1-position of the main predication);
- (iv) if there is a performative verb in the predication, the Theme is usually not dominated by that performative verb.

The following Dutch conditionals do indeed behave as Themes:

- (5) Als Jan thuis blijft, blijf ik ook thuis (declarative)⁴
If John home stays, stay I also home
('If John stays at home, I stay at home too')
- (6) Als Jan thuis blijft, blijf jij dan ook thuis? (inter-
If John home stays, stay you then too home rogative)
('If John stays at home, will you stay at home too in that case?')
- (7) Als je het hier zo vervelend vindt, waarom ga je dan niet
If you it here so boring think, why go you then not
weg?
away
('If you think it's so boring here, why don't you just go away?')
- (8) Als je het hier zo vervelend vindt, ga dan weg (impera-
If you it here so boring think, go then away tive)
('If you think it's so boring here, just go away')
- (9) Als je mij geld geeft, beloof ik je dat ik kaartjes
If you me money give, promise I you that I tickets
zal kopen
will buy

('If you give me some money, I promise I'll buy tickets')

Temporal clauses exhibit the same features:

- (10) Toen Jan thuis bleef, bleef ik ook thuis
When John home stayed, stayed I too home
('When John stayed at home, I too stayed at home')
- (11) Toen Jan thuis bleef, ben jij toen ook thuis gebleven?
When John home stayed, are you then too home stayed
('When John stayed at home, did you stay at home (then?) as well?')
- (12) Toen Jan thuis bleef, waarom ben jij toen niet ook thuis
When John home stayed, why are you then not too home
gebleven?
stayed
('When John stayed at home, why didn't you stay at home as well?')
- (13) Toen Jan mij geld gaf, beloofde ik hem dat ik kaartjes
When John me money gave, promised I him that I tickets
zou kopen
would buy
('When John gave me some money, I promised him that I would buy tickets')

These phenomena can also be illustrated by conditional and temporal clauses from Classical Greek. Notice especially the following cases of interrogative ((14) and (18)), imperative ((15) and (17)) and performative ((16)) main clauses (CP = connective particle):⁵

- (14) ei nikéseis , tí spheas apairéseai?
If conquer-Fut-you, what them take away-Fut-you
('If you conquer (them), of what will you deprive them?',
Hdt. 1,71,3) (interrogative)
- (15) sù dè ei ... prothuméai Massagetéon peirethênai,

you CP if be-eager-Pres-you Massagetæ try-Aor-inf,
 phére mókhthon ... tòn ékheis
 come [adhort. particle] labour that have-Pr-you
 áphes
 let go-Aor-imper.

('If you desire to essay the strength of the Massagetæ,
 come on then, quit your present labour ...', Hdt. 1,206,2)
 (imperative)

- (16) ei de taûta ou poiéseis , hélion epómnumi ...
 If CP this not do-Fut-you, sun swear by-Pres-I ...
 ('If you will not do this, then I swear by the sun ...',
 Hdt. 1,212,3) (performative verb in main clause)

- (17) epeân dê apò toû thrónou stíkhēi epì tèn eunèn ...,
 when CP from the chair go-Subj-she to the bed,
 soi meléto hókos mē ...
 you-to be of interest-Pres-Imp that not
 ('When she goes from the chair to the bed ..., do you look
 to it that she does not ...', Hdt. 1,9,3) (imperative)

- (18) hótan d' ho daímon eû didôî, tí deî
 when CP the god well give-PrSubj-he, why be need-Pr-it
 phílon?
 friends?

('But when the god is gracious in his gifts, why do we need
 friends?', Eur. Orest. 667) (interrogative)

It may be concluded, I think, that (under the definition given by Dik) the clauses given above qualify as Themes.⁶ But then a number of problems arise. Intuitively, conditional, and especially temporal, clauses would seem to function primarily as Satellites. Satellites specify additional aspects of the state of affairs designated by the nuclear predication (cf. Dik 1978: 49). They are optional extensions of this predication. Themes, on the other hand, were considered to

be outside the Predication, which I take to mean: outside the full, or extended, predication, i.e. the nuclear predication plus the satellites. The conditional and temporal clauses presented in (5)-(18) are (on this analysis) not satellites. And, in fact, they hardly fit the definition given by Dik of satellites, since they do not additionally specify the nuclear predication. If anything, the nuclear (= main?) predication rather gives additional information which is relevant for the state of affairs designated by the conditional or temporal clause. Conditional and temporal clauses may, of course, also function as satellites, but then we are dealing with constructions like the following:

- (19) Wij zijn weggegaan toen Jan niet kwam opdagen
 We are gone away when John not turned up
 ('We went away when John didn't turn up')

Here, indeed, the temporal clause specifies additional aspects of the nuclear state of affairs.

For a Greek example cf.:

- (20) ... en tōi humetéroi stratopédoi, énthā basileus
 in the your camp, where king
 aphíketo epeí Kúron apékteine
 arrive-Aor-he after Cyrus kill-Aor-he
 ('... in your camp, where the king had arrived after he had
 killed Cyrus', Xen. An. 2,3,19)

The satellite status of temporal clauses, in particular, is especially clear when the clause forms the answer to a question with wanneer 'when', and has, thus, Focus function (cf. Dik 1978: 93), e.g.:

- (21) A: Wanneer zijn jullie weggegaan?
 When are you gone away

B: Wij zijn weggegaan toen Jan niet kwam opdagen

We are gone away when John not turned up

A: 'When did you go away?'

B: 'We went away when John didn't turn up'

Notice that, whereas in sentences (10)-(13) (and probably also in (17)-(18), as will be argued in sections 2.1.3.5. and 2.3.1.2.) the content of the subordinate clause is presupposed, in this case it is the content of the main predication that is presupposed. Again, Classical Greek provides similar constructions. Cf.:

- (22) **pôte** dè ... épraxan? **hót'** edorodókei
 when CP do-Aor-they? When take bribes-Impf-he
 ('But when did they do (this)? When he took bribes',
 Dinarchus 1,74)

For some further examples and for a discussion of the syntactic and semantic differences between sentence-initial and sentence-final temporal clauses see Rijksbaron (1976: 36; 88-89).

Conditional and temporal clauses may also have Tail function; in that case, too, they are outside the predication proper and, thus, not satellites. One example:

- (23) Zijn jullie weggegaan, toen Jan vertrok?
 Are you gone away, when John left
 ('Did you go away, when John left?')

Again, John's leaving is presupposed. Notice that there is comma intonation after 'weggegaan'.⁷ Here, then, the universe of discourse with respect to which it is relevant to pronounce the main predication follows upon that predication as a kind of afterthought.

All this suggests that subordinate conditional and temporal clauses like those in (5)-(18) should be introduced as Themes.

There is one further reason why the introduction of conditional and temporal clauses as Themes is desirable within the theory of FG. If such clauses are introduced as extensions of the predication, their initial position would seriously conflict with the principle of LIPOC, according to which constituents prefer to be placed in order of increasing complexity, subordinate clauses having the last position (cf. e.g. Dik (1983: 273), who discusses the implications of this principle mainly in connection with object-clauses with verbs of saying). On the basis of LIPOC we might expect conditional and temporal clauses to tend to occur in final position. This, however, is patently false: they clearly prefer initial position.⁸ If we assign Theme function to such clauses they are detached from the predication proper and thereby, we may postulate, are no longer sensitive to LIPOC.⁹ Satellite conditional and temporal clauses, on the other hand, may be considered to be subject to LIPOC; they would seem to prefer, indeed, a sentence-final position.¹⁰

Finally, all this also has a bearing upon the way in which the tense and mood of the embedded predication and of the main predication are arrived at, in other words, upon the selection of the appropriate predicate operators. Some scholars, e.g. Haiman (1983: 275), assume that the protasis and the apodosis of a conditional period typically exhibit the same structure and have e.g. the same mood, notably in counterfactuals. If this were true, one predicate operator might trigger the appropriate mood both in the protasis and in the apodosis. It would hardly be feasible, in that case, to assign Theme function to the protasis, thus dissociating it from the main predication. Haiman's assumption, however, is not borne out by the data. On the contrary, conditional clause and main predication often show a remarkable variety of moods.¹¹ This phenomenon, too, can best be accounted for by assigning an independent status to the conditional clause, i.e. by giving it Theme function. This will ensure that conditional clause and main clause each will have their own predicate operator. The same would seem to apply to sentences

containing temporal clauses, where subordinate clause and main clause may show a similar variety of moods.

We may conclude that there are strong indications that, within the theory of Functional Grammar, conditional and temporal clauses should under certain conditions be considered as having the pragmatic function Theme. Only in this way can we account for a number of important syntactic and semantic characteristics of these clauses. The latter characteristics will be discussed in more detail in the next section, on the basis of some material taken from Classical Greek, where the semantic diversity of embedded predication and main predication is rather conspicuous.

2. THE SEMANTICS OF CONDITIONAL AND TEMPORAL CLAUSES IN CLASSICAL GREEK

2.0. Introduction

Conditional clauses are normally introduced by the conjunction ei 'if'; in some clause types this is combined with a clitic modal particle, án, yielding eán, án or én. Temporal conjunctions are e.g. epeí, 'after', 'when', and hóte 'when'. These, too, may combine with án, yielding epeán or epén and hótan. The moods occurring in both clause-types are: indicative, subjunctive and optative; eán, epeán and hótan are construed only with the subjunctive. This may be schematized as follows (in the remainder I will concentrate on ei and epeí):

MOOD CONJ.	Indicative	Subjunctive	Optative
ei	+	-	+
eán	-	+	-
epeí	+	-	+
epeán	-	+	-

As such, these differences as to mood and conjunction are not

sufficient to establish the exact semantic value of a given clause. These values are, rather, dependent upon the temporal reference of the clause, which is, in turn, to a large extent determined by the type of discourse in which the clause occurs. The discourse type provides, then, important clues as to the way in which a given clause should be interpreted. This applies especially to eán and epeán + subjunctive, and ei and epei + optative. These discourse types are: (a) interactive direct (and indirect) speech; (b) narrative; (c) descriptions; (d) author's or speaker's comments.¹² Within the 'indicative' category the tense is also an important factor. The following schema presents some typical combinations of ei and epei-clauses and their temporal reference, classified according to discourse type. The various semantic values that are connected with these combinations will be given below, with some examples and additional comments.

TEMPORAL REFERENCE OF THE SUBORDINATE CLAUSE

DISCOURSE CLAUSE TYPE	INTERACTIVE SPEECH	NARRATIVE	DESCRIPTIONS	AUTHOR'S COMMENTS
<u>ei</u> + indicative	past, present, fut.	-	-	past, pres, fut.
<u>ei</u> + (counterfactual) past indic.	past, present	-	-	past, present
<u>eán</u> + subjunctive	future	-	(generic) present	-
<u>ei</u> + optative	future	-	(habitual) past	future
<u>epei</u> + pres. indic.	present	-	-	-
<u>epei</u> + past indic.	-	past	-	-
<u>epeán</u> + subj.	future	-	(generic) present	-
<u>epei</u> + optative	-	-	(habitual) past	-

It is clear from this schema that there are a number of oppositions, both between ei-clauses internally (e.g. eán + subjunctive and ei + optative in interactive speech) and between ei-clauses and epei-clauses (e.g. eán + subj. and epeán + subj. in descriptions).

The basic difference between ei- and epei-clauses is a difference of modality, i.e. a difference pertaining to the 'attitude' (of the speaker) 'with respect to the relation between

2.1. Discourse type: interactive speech (and author's comments)

2.1.1.1. ei + present indicative

(24) (= (15)) sù dè ei ... **prothuméai** Massagetéon
you CP if be eager-Pr-you Massagetae
peirethênai, phére mókhthon ... tòn
try-Aor-inf, come (adhort. particle) labour that
ékheis áphes

have-Pr-you let go-Aor-imper

('If you desire to essay the strength of the Massagetae,
come on then, quit your present labour ..', 1,206,2)

- (25) **ei dé eisi** hyperbóreoi tines ánthropoi, eisĩ
if CP be-Pr-they hyperborean certain people be-Pr-they
kaí hypernótioi álloi
also 'hypernotian' other
('If there are men beyond the north wind, then there are
others beyond the south', 4,36,1)

The speaker (in (25) this is the author himself) leaves it in the open whether the addressee has the state of mind described (ex. (24)), or whether the state of affairs described exists (ex. (25)). Observe that skeptical attitudinal disjuncts like alethôs 'really, truly' may be added. In the main clause the speaker envisages the consequences of the hypothesis; it may contain any tense or mood: often it is an imperative, as in (24), or a present indicative, as in (25).

2.1.1.2. epei + present indicative

This clause type is the 'presuppositional' counterpart, so to speak, of ei + present indicative. These clauses, too, are often used to take up some earlier piece of information, which this time, however, is presented as taken for granted, i.e. as presupposed. Consider:

- (26) **epei** ... ou **dúnamai** se peíthein mè
now that not can-Pr-I you convince-Pr-inf not
ektheînai, sù ... hôde poíeson
expose-Aor-inf you as follows do-Aor-imper
('Now that I cannot move you from your purpose to expose
(the child), then do you act as follows ...', 1,112,2)

The content of the epei-clause, which takes up, in direct speech,

the information given by the preceding sentence in the narrative (hos dè ouk épeithe ... tòn ándra 'When she was unable to move her husband'), is presented as an established fact.¹⁵ The main clause may have any non-past tense or mood; as with ei-clauses it often is an imperative. These epei-clauses are, of course, not strictly temporal (cf. Rijksbaron (1976), where they are called 'inferential' clauses).

2.1.1.3. ei + imperfect

Just as in other languages, the imperfect is used in a conditional clause to express that, at the speech moment, a given state of affairs is not and cannot any longer be realized (lost possibility or counterfactual). The main clause has a past tense plus the modal particle án, expressing what would be the consequence if the condition was fulfilled. E.g.:

- (27) ei ... ēpistámetha saphôs hóti héxei ... Kheirísophos
 if know-Impf-we clearly that come-Fut-he Cheirisophos
 ..., oudèn àn édei hōn méllo
 in no way MP be need-Impf-it what-of be about-Pr-I
 légein
 say-Pr-inf
 ('If we knew beyond doubt that Cheirisophos would come back
 ..., then there would be no need of what I am about to say',
 Xen. Anab. 5,1,10)¹⁶

2.1.1.4. ei + optative

This clause type expresses that the realization of the state of affairs is possible, but strictly no more than that (this is the so-called 'potential' use of the optative). Such a clause may have future reference (see 2.1.3.2.), or present reference, as in:

- (28) pāsi humīn, ei hoíón te eíe,
 all-to you (pl.)-to if be possible-PrOpt-it
 kharizoímen án ... all' ou gār hoíá té esti ...
 grant wish-PrOpt-I MP. But not for be possible-Pr-it
 pāsi katā nóon poiéein
 all-to according to will do-Pr-inf
 ('If it were possible I would grant each of you his wish
 ... But since I cannot please all of you ...', 6,130,1)

These clauses are typically used to contrast a certain state of affairs with some other, factual, state of affairs, and as such they resemble counterfactuals (see 2.1.1.3): both types may be followed by a sentence beginning with nūn dé 'In fact, however' or allà ... gār 'But since ...' (as in (28)). However, whereas a counterfactual clause signals unequivocally that the state of affairs is not and cannot be realized, the optative indicates that the state of affairs, while not being realized, might still be realized.¹⁷

The main clause usually has an optative accompanied by the modal particle án (as in (28)), expressing what would be the consequence of the fulfilment of the condition, but other moods are by no means rare, e.g. the present indicative (which expresses the consequence less cautiously than the optative + án; see e.g. Hdt. 7,101,2).

2.1.2. The subordinate clause has past reference

2.1.2.1. ei + imperfect or aorist indicative

Two types must be distinguished. First, as with other ei + indicative clauses, these clauses may express indifference or indeterminacy as to the likelihood of the realization of the state of affairs. They are used typically to express the author's comments on his own story. E.g.:

- (29) egò d' ékho perĩ autôn gnómen ténde; ei
 I CP have-Pr-I about these things opinion this if
 alethéos hoi Phoínikes **exégagon** tàs hiràs
 really the Phoenicians carry away-Aor-they the holy
 gunaïkas ..., dokéei emoí ...
 women seem-Pr-it me-to
 ('But this is my own belief about it. If the Phoenicians did
 in truth carry away the sacred women ..., then I think that
 ..., 2,56,1)

Note the introductory sentence and the attitudinal disjunct alethéos. These ei-clauses may, again, be followed by any tense or mood.

If, however, an ei-clause contains an aorist indicative and is followed by a main clause that has a past indicative plus the modal particle án, the ei-clause expresses that the state of affairs has not been and cannot any longer be realized (lost possibility or counterfactual in the past). This is, then, the past counterpart of the present counterfactual discussed in 2.1.1.3. An example is:

- (30) ei d' ekeína ... **prosétheken**, oudeĩs antekheirotonésen
 if CP this add-Aor-he nobody vote against-Aor-he
 án
 MP
 ('If he had added this, no one would have voted against
 (him)', Aristoph. Ecc1. 422-23)¹⁸

2.1.2.2. Indeterminate or counterfactual?

It will have been observed that, when taken in isolation, an ei + past tense-clause may have both an indeterminate and a counterfactual reading. The question arises, therefore, as to how we may differentiate between them. Generally speaking, the context provides sufficient indications as to which reading applies.

First of all there is, of course, the main clause. If this clause contains a past tense and the modal particle án, the ei-clause receives a counterfactual reading. In all other cases the indeterminate reading applies. It is, however, somewhat unsatisfactory to make the interpretation of the ei-clause depend only upon the type of the main clause: since the latter usually follows upon the ei-clause, this would mean that we cannot be certain of the interpretation of the ei-clause until the main clause is known. But this is not the case. Usually the preceding context already provides clear clues as to the way in which a given ei-clause has to be interpreted. Thus, a counterfactual reading imposes itself if the conditional clause is preceded by a sentence in which reference is made to a factual state of affairs: 'X is the case. If x were not the case ...' or 'If y were the case ...' Here, an indeterminate reading is excluded: 'x is the case. *If x was (really) the case', since this would amount to denying the reliability of one's own information. On the other hand, an indeterminate reading is usually prepared by the presence of someone else's opinion: 'They say x. If x was (really) the case ...'. Roughly speaking, the indeterminate reading is more likely to occur in contexts where a speaker/author takes a stand against his sources or informants, whereas the counterfactual reading imposes itself whenever a speaker/author comments upon his own words by considering an alternative state of affairs to the one he has just described, and the consequences thereof. Note, finally, that these readings have one thing in common: they both are opposed to the 'real' world. They are, thus, 'alternative' worlds rather than 'possible' worlds.

2.1.3. The subordinate clause has future reference

It is here that we find the greatest variation in semantic values, not unexpectedly, since the future is the 'temporal domain' par excellence for hypothetical reasoning. There is, of

course, no opposition to the real world, and we are, therefore, dealing with possible worlds in the strict sense, i.e. worlds that are conceived as more or less speculative anticipations of the future.

2.1.3.1. ei + future indicative

Again, these clauses express indifference or indeterminacy as to the likelihood of the realization of the state of affairs. E.g.:

- (31) ei dé tina humôn lépsomai en têi thaláttei,
 if CP someone you (plur.)-of catch-Fut-I in the sea
 katadúso
 sink-Fut-I
 ('If I catch anyone of you on the sea, I will sink him',
 Xen. An. 7,2,13)

The skeptical nuance that may be present here, too, as with the other indicatives, may imply that the speaker considers realization of the state of affairs undesirable, particularly when the apodosis refers to something undesirable or unpleasant, as in (31). As a result, such clauses may function pragmatically as strong admonitions to avoid a certain action. (Cf. Gildersleeve (1876)). The main clause usually has a future indicative, as in (31), but present indicative, imperative and (potential) optative + án occur as well.

2.1.3.2. ei + optative

Ei + potential optative may also (cf. 2.1.1.4) have future reference, expressing, again, that the realization of the state of affairs is strictly no more than possible.¹⁹ Again, the main clause normally has an optative plus the modal particle án. An example is:

- (32) **eí** pote ... aũthis **epipésoi**, málist' àn
 if ever again strike-AorOpt-it surely MP
 ékhoi ... proeidòs mè
 be able-PrOpt-he know beforehand-Ptc-masc not
 agnoeîn
 be ignorant-PrInf
 ('If it (the disease) should ever strike again, one certainly, by knowing beforehand (the symptoms), may recognize it',
 Thuc. 2,48,3)

Unlike the situation with ei + optative having present reference there is, of course, no contrast with a factual state of affairs: Thucydides is strictly hypothesizing about the future.

2.1.3.3. epeí + optative

This clause type, in which the conjunctions hóte and hopóte are more common than epeí, establishes a temporal link between a potential state of affairs and the state of affairs of the main clause. Due to the potential nature of the subordinate state of affairs this construction is semantically similar to a condition. The main clause usually has an optative plus the modal particle án. An example is:

- (33) **hopóte** ... tò philosophheîn aiskhròn
 the moment that the philosophize-Pr-inf ugly
hegesaímen, oud' àn ánthropon nomísaimi
 think-AorOpt-I not even MP human being consider-AorOpt-I
 emautòn eínai
 myself be-Inf
 ('The moment that I should deem philosophizing an ugly
 business, I would not even consider myself to be a human
 being', Pseudo-Plato, Amat. 133a)

An English translation may use the moment (that) or possibly also

when. The semantic similarity of these temporal conjunctions to ei can be inferred from their occurrence in disjunctive situations, e.g. in Xen. Anab. 7,7,17, where we find hopóte + opt. contrasted with ei dè mè ('if not, however'). Note, finally, that unlike ei + optative, hóte etc. + opt. would never seem to have present reference.

2.1.3.4. eán + subjunctive

This clause type expresses that the possibility that the state of affairs will be realized is a plausible one. An example is:

- (34) èn nikethêis , máthe hósa agathá
 If conquer-PassAorSubj-you, learn-AorImper how many goods
apobaléeis
 lose-Fut-you
 ('But if you are conquered - which I think is plausible -
 then see how many good things you will lose', 1,71,3)

Skeptical disjuncts like alethôs 'really' naturally do not occur in these clauses. We do find, on the other hand, disjuncts emphasizing the plausibility of the fulfilment of the condition, e.g. tà egò elpízo in: èn tà egò elpízo génetai 'if things go the way I expect them to' (Hdt. 8,60,γ). The main clause usually has a future indicative, but imperatives (as in (34)) and other moods occur as well.

The semantic difference between e.g. ei + future indicative and eán + subjunctive is apparent in a passage like the following, where the two types are contrasted:

- (35) (= (14) + (34)) ei nikéseis (fut. indic.) tí speas
aphairéseai ...? èn niketheis (aor. subj.) máthe hósa agathá
apobaléeis ('If you conquer (fut. indic.) them, of what will
 you deprive them ...? (But) if you are conquered
 (aor. subj.), then see how many good things you will lose',

1,71,3)

The use of the moods makes clear that the speaker, who tries to convince his addressee of the dangers of an expedition planned by the latter, considers the chances of being conquered (én + subjunctive) greater than those of conquering the enemy (ei + future indicative).²⁰

2.1.3.5. epeán + subjunctive²¹

This clause type expresses, again, that it is plausible that the state of affairs will be realized (cf. eán + subj.). It also establishes a temporal relationship between the subordinate state of affairs and the main clause. The combined effect of the temporal (non-conditional) conjunction and the value 'plausible', conveyed by án + subjunctive, is that the clause expresses maximal certainty as to the realization of the state of affairs; sometimes the realization is virtually presupposed. Note that in this case there is no rapprochement with conditions (as with epeí + optative, cf. 2.1.3.3). On the contrary, eán and epeán are in principle clearly set off from each other, as will be further elucidated in 2.1.3.6.²² Like the other epeí-clauses (see 2.1.1.2 and 2.2), epeán-clauses often refer back to earlier information; if so, they occur in what may be called 'projected narrative', i.e. structures of the form: 'A will do x. Having done x, he will do y. After he has done y, he will do z', etc.²³ An example is:

- (36) párestai kaí he gunè he emè ... epí tou̓ton ...
 be present-Fut-she also the wife the mine On this
 thései ... epeán dè apò tou̓ thrónou stíkhēi
 put-Fut-she When CP from the chair go-PrSubj-she
 epí tèn eunén, ... soi̓ meléto ...
 to the bed you-to be of interest-PresImp-it
 ('My wife too will come ... On this (chair) she will lay

(her clothes) ... When she goes from the chair to the bed,
... do you look to it (that ...) ', 1,9,3)

The main clause contains the same verb forms as with eán-clauses, mainly imperatives (as in (36)) and future indicatives.

2.1.3.6. The choice between the various clauses having future reference

All clauses discussed in sections 2.1.3.1 through 2.1.3.5 refer to the future. They express different shades of conviction as to the likelihood of the realization of the state of affairs, which run from indeterminate through possible and plausible to (almost) presupposed. Are there specific factors determining the choice of one rather than another clause? This is, of course, a difficult question, especially when all the data come from written texts, that are, moreover, mostly of a literary nature. Nevertheless it would seem possible, by using both general semantic and pragmatic principles and contextual information, to detect a number of tendencies. These are:

- (i) a temporal clause must be used if the embedded predication expresses an inevitable natural phenomenon. Compare (I use English examples): 'when darkness has come' as opposed to *'if darkness has come', or 'when I am dead' against *'if I am dead'
- (ii) a temporal clause is very likely to be used
 - (a) if the embedded predication expresses a probable natural phenomenon, as for instance in:

- (37) epeàn egò génomai anér, Aigúptou tà ... áno
 after I become-AorSubj-I man Egypt-of the high
 káto thésó
 down put-Fut-I
 ('When I am grown a man, I will turn all Egypt upside
 down', 3,3,3)

The use of a conditional clause would have indicated that the speaker is not certain that he will grow up; this is, of course, strictly speaking correct, but is normally not envisaged when one considers one's own development.

- (b) in descriptions of future behaviour, if that behaviour involves a continuation of past behaviour. Thus, in (36), the speaker, being the husband of the woman involved, can be reasonably certain that his wife will behave as indicated: he must have witnessed the same actions repeatedly. Indeed, in the given situation and with the state of affairs concerned, a conditional clause - of any type - would be very strange.
- (c) in contexts where the addressee is ordered to perform a certain action and the speaker may naturally expect that the order will be carried out, as in:

(38) allá sphi sémenon ... hos ékhei
 but them make clear-AorImper how have-Pr-it.
 epeàn dè seméneis ...
 after CP make clear-AorSubj-you
 ('But make it clear to them, how it stands. And
 after you have made it clear to them ...', 8,80,2)

Again, a conditional clause is most unlikely, since this would indicate that the speaker is not too certain of his authority.

- (iii) whereas one might say that the choice of a temporal clause in the cases discussed under (i) and (ii) is justified on probabilistic grounds, temporal clauses are also used in cases where there is no such probabilistic justification. They convey the idea that the speaker is very confident or even convinced that a given state of affairs will be realized. Consider e.g.:

- (39) *kaî poíee hókos, epeàn egò ... éltho*
 and make-PrImper that when I come-AorSubj-I
ekeî
 there
 ('... and see to it that, when I have come there ...',
 1,209,5)

In reality, the speaker cannot be certain of his arrival at the place in question, the less so since he is involved in a war.²⁴

- (iv) It is in cases such as those discussed under (iii) that temporal clauses compete with conditional clauses. The latter type is, not unexpectedly, far more frequent: since the future is concerned, too much confidence will - all things being equal - be avoided.²⁵ As to the choice between the various moods, this would seem to be related to the following factors, among others:
- (a) if a future indicative is used, the overall tone of the context is skeptical and diffident;
 - (b) if a subjunctive is used, the context contains positive indications as to the possible occurrence of the state of affairs in question.

A clear illustration of both (a) and (b) is provided by example (35): in the preceding context the speaker has made it clear that he thinks it a bad idea to wage war. This explains the use of the skeptical fut. indic. *nikéseis*. But his being skeptical as to winning the war means, of course, that he is positive as to the chances of being defeated, which explains the - passive - aor. subj. *nikethêis*. Note, furthermore, that, unlike optative clauses (see (c)), both future indicative and subjunctive express a state of affairs that is of direct relevance in the situation at hand.

- (c) the use of the optative would not seem to be connected

with any specific contextual features. In fact, an optative condition is often not or only marginally relevant in the situation at hand, and would seem to be introduced more or less for the sake of the argument.

All this is not to say that every single instance of a particular mood can be explained without further difficulties. Assessing the future involves, after all, a considerable amount of subjectivity, and, thus, arbitrariness, so that the grounds which a speaker - or, in a literary work, the author behind the speaker - had for preferring one mood to another may remain obscure to us.

2.2. Discourse type: narrative

Since 'narrative' crucially involves (reports of) past events and relates, therefore, exclusively to the real world, only temporal, and no conditional clauses occur. These temporal clauses contain a past indicative (imperfect or aorist indicative) and presuppose the realization of the state of affairs; they typically express single states of affairs (as opposed to epeí + optative, which expresses, rather, a habitual past state of affairs, see section 2.3.2.2). Normally the epeí-clauses take up earlier information. An example is:

- (40) epeí ôn ho boukólos ... apíketo , élege ... táde
 when so the cowherd arrive-Aor-he say-Impf-he this
 ('So when the cowherd had come ..., (Harpagus) said the following', 1,110,3)

Apíketo refers back to ch. 110: 'he sent a messenger to fetch that cowherd, whom he knew ...'.

2.3. Discourse type: descriptions of manners and customs

2.3.1. Non-past descriptions

2.3.1.1. eán + subjunctive

This clause type simply expresses that it is possible for the state of affairs to be realized, without any additional semantic nuances as to the likelihood of that realization. The latter are, in fact, irrelevant, since 'possibility' entails, in this particular type of discourse, that the state of affairs is sometimes realized. We are, therefore, no longer dealing with hypotheses. Consider the following example from Herodotus, which occurs in a passage where the author describes the way one travels on the Nile. At a certain difficult place, so he tells us, one has to leave the ship and tie a rope to it on both sides, to drag it along. He then adds:

- (41) èn dè aporragêi , tò ploïon oíkhetai
 if CP break-PassAorSubj-it the ship go away-Pr-it
 phenomenon
 carry away-PassPrPtcNeuter
 ('If the rope breaks, the ship is carried away (by the force of the stream)', 2,29,2)

Here we are dealing with 'real' states of affairs. In the situation described it is apparently an empirical, and not a hypothetical, phenomenon that it is possible for the rope to break. Now 'x is possible' in such a context entails 'x sometimes occurs'. In fact, the clause could be paraphrased by 'There sometimes the rope breaks. In that case ...'.²⁶ Much the same entailment of the notion 'possible' is present in a sentence like:

- (42) It can be cold in Berlin

This entails 'It is sometimes cold in Berlin'. Notice that this sentence, too, is a kind of 'general description'. On the other

hand in:

(43) It may be cold in Berlin

there is no such entailment, nor is this sentence a general description. It contains, rather, a reference to a single actual or future situation.²⁷

The main clause has a generic - or habitual - present indicative or, far more seldom, a so-called 'gnomic' aorist indicative.

2.3.1.2. epeân + subjunctive

This clause type presupposes the repeated realization of the state of affairs of the subordinate clause, which means specifically that on all possible occasions in the given situation this state of affairs obtains. The semantic difference with eân-clauses, which occur in the same structural environment, is apparent; whereas eân-clauses express that the state of affairs concerned is sometimes realized, epeân-clauses express that the state of affairs in question is always realized. There is thus no disjunctive situation. In Van der Auwera's terms (cf. note 27) one might say that it is a necessary feature of the state of affairs that it obtain. As with other epei-clauses, there is often reference to previous information. An example is:

(44) (The Assyrians build strangely shaped boats to sail down the
Euphrates) epeân ôn apíkontai pléontes es
when so arrive-AorSubj-they sail-PrPtc-nompl to
tên Babulôna, (they sell their cargo and) apélaounousi
the Babylon go away-Pr-they
es tous Armeníous. epeân dè ... apíkontai opíso...
to the Armenians When CP arrive-AorSubj-they back
('So when they have arrived, while sailing, in Babylon, they
(sell their cargo and) go back to the Armenians. And when

they have come back ...', 1,194,4)

Here it is indicated that every instance of sailing to Babylon, and every instance of going back, is followed by an arrival. Substitution of epeán by eán (én) would have indicated that not all sailings to Babylon - or all returnings to the Armenians - led to an arrival.²⁸ As with eán-clauses, the main clause either contains a generic present indicative or a 'gnomic' aorist.

2.3.2. Past descriptions

2.3.2.1. ei + optative

Generally speaking, these clauses form the past counterpart to eán + subjunctive in non-past descriptions (see 2.3.1.1.), with a similar 'contingent' value: the state of affairs referred to by the subordinate clause was sometimes realized in the given situation.²⁹ The main clause usually has an imperfect, having iterative value. An example is (KCP = kataphoric connective particle):

- (45) ... katélege tôn khresmôn; ei mén ti
 recite-Impf-he the-from oracles-from if KCP something
 enéoi sphálma phéron tõi
 be there-PrOpt-it disaster bring-PrPtc-ntr the-to
 barbároi, tôn ... élege oudén, ho dè tà
 non-Greek-to, them-from say-Impf-he nothing, he CP the
 eutukhéstata eklegómenos élege ...
 most favourable pick out-PrPtc-masc say-Impf-he
 ('... he would recite from his oracles; if there was
 something among them which portended disaster to the
 Persian, he would say none of these, but he would chose out
 and recite what was most favourable ...', 7,4,6)

Here we are dealing with real events, not with hypothetical

2.3.2.2. epeĩ + optative

Just as ei + optative is the past counterpart of eán + subjunctive, so epeí - or, rather, hopóte and, in Herodotus hos and hókos, since epeí is rare - plus optative is the past counterpart of epeán + subjunctive. It indicates, therefore, that the state of affairs involved was always realized in the given situation. The main clause usually has, again (cf. ei + opt.), an imperfect. E.g.:

- (46) .. eséballe tèn stratién; ... **hos** dè es tèn
 send against-Impf-he the army when CP to the
 Milesíen **apíkoito** , oikémata ... oúte
 Milesian arrive-AorOpt-he, houses neither
 katéballe oúte enepímpe ...
 demolish-Impf-he nor burn-Impf-he
 ('... he sent his army against (Miletus); ... and whenever
 he came to the Milesian (land), he neither demolished nor
 burnt the houses ...', 1,17,2)³⁰

2.4. Conclusion

The above discussion of the various ei- and epei-clauses has been arranged according to discourse type. This arrangement was based on the assumption that the discourse type is of prime relevance for the interpretation of these clauses, which would not be fully interpretable in isolation. When viewed from the conjunctions and the different moods, the results of the discussion can be presented as follows:

- (i) *ei* + any indicative occurs only in the discourse type

Interactive Speech (and the related type Speaker's or Author's Comments). It refers to past, present or future and expresses that the realization of the state of affairs (the fulfilment of the condition) is indeterminate, or, with a past indicative, either indeterminate or impossible;

- (ii) epeí + present indicative occurs only in Interactive Speech. It refers to the present and expresses the idea that the realization of the state of affairs is presupposed;
- (iii) epeí + past indicative occurs only in Narrative. It refers to the past and expresses the idea that the realization of the state of affairs is presupposed;
- (iv) eán + subjunctive occurs both in Interactive Speech and in Non-past Descriptions;
 - (a) in Interactive Speech it refers to the future and expresses the idea that it is plausible that the state of affairs will be realized;³¹
 - (b) in Descriptions it refers to the (habitual) present and expresses the idea that the state of affairs is sometimes realized (it is a contingent feature of the state of affairs that it be realized);
- (v) epeán + subjunctive occurs both in Interactive Speech and in Non-past Descriptions;
 - (a) in Interactive Speech it refers to the future and expresses the idea that the realization of the state of affairs is virtually presupposed;
 - (b) in Descriptions it refers to the (habitual) present and expresses the idea that the realization of the state of affairs is presupposed (and occurs, thus, always in the given situation);
- (vi) ei + optative occurs both in Interactive Speech and in Past Descriptions;
 - (a) in Interactive Speech it refers either to the present or to the future and expresses the idea that it is potentially possible for the state of affairs to be realized;

- (b) in Descriptions it refers to the (habitual) past and expresses the idea that the state of affairs was sometimes realized (that is was a contingent feature of the state of affairs to be realized);³²
- (vii) epeí + optative occurs both in Interactive Speech and in Past Descriptions:
 - (a) in Interactive Speech it refers to the future and expresses the idea that it is potentially possible for the state of affairs to be realized;
 - (b) in Descriptions it refers to the past and expresses the idea that the realization of the state of affairs is presupposed (and occurred thus always in the given situation).

It will be clear from this summary that the discourse type is particularly relevant for the interpretation of the non-indicative clauses; the indicative clauses are all connected with one discourse type only. To put it differently: for the interpretation of e.g. eán + subjunctive it is necessary to know in which discourse type it occurs, whereas e.g. ei + present indicative has only one interpretation.

2.5. Some final observations: the semantic value of the moods and tenses, and of the aspects

2.5.1. Moods and tenses

One of the results of the above treatment of conditional and temporal clauses is that many clauses are given a different interpretation although they are characterized by the same moods and tenses. It must be asked, of course, what, if any, are the common semantic features of a given mood or tense.

Indicative

The indicative may have the following values as to the

realization of the state of affairs:

- indeterminate (ei + any indicative)
- counterfactual (ei + past indicative)
- presupposed (epeí + past and present indicative)

Furthermore, the following tense values are involved:

- past (ei + impf. and aor. indic., epeí + impf. and aor. indic.)
- present (ei + pres. indic., epeí + pres. indic., (counterfactual) ei + impf.)
- future (ei + fut. indic.)³³

This reveals that what the various indicatives have in common is their tense value (but note the special position of counterfactual ei). The indicative mood as such does not have an invariant value, since this may range from counterfactual to presupposed. Which value applies is crucially connected with the conjunction.

Subjunctive + án

The subjunctive + án may have the following values as to the realization of the state of affairs:

- plausible (eán in Interactive Speech; future states of affairs)
- virtually presupposed (epeán in Interactive Speech; future states of affairs)
- contingent occurrence ('sometimes') (eán in Non-past Descriptions; habitual states of affairs)
- necessary occurrence ('always') (epeán in Non-past Descriptions; habitual states of affairs).

As to tense values, there is no common value involved, unless it be that a subjunctive + án can only be used with non-past states of affairs. Is there, apart from this, any semantic feature covering these various usages? First of all, it may be doubted whether the subjunctive in Descriptions has any semantic value at all. Now it might be argued that both eán- and epeán-clauses express habituality; this is true, of course, but this value is not conveyed by the mood, but is a feature of the discourse type as a whole. Furthermore, there is no freedom of

choice concerning the mood of conditional and temporal clauses referring to habitual states of affairs: such clauses are automatically characterized by the subjunctive + án. This means that the semantic difference between these clauses does not reside in the mood, but solely in the conjunction. With clauses having future reference the situation is different, since there does exist, in this case, freedom of choice, viz. between indicative, subjunctive and optative (: ei) and between subjunctive and optative (: epeí). In both clause types the subjunctive has the value 'plausible', although, as was argued above (2.1.3.5.), in actual usage epeán-clauses differ considerably from eán-clauses, to the point of not being interchangeable.

Given these differences between the four types of subjunctive clauses I fail to see how they can be reduced to one single semantic value.³⁴ Note especially, in this connection, the non-relevance of the value 'plausible' for habitual clauses.³⁵

Optative

The optative may have the following values as to the realization of the state of affairs:

- potentially realizable (ei and epeí in Interactive Speech; present and future states of affairs)
- contingent occurrence ('sometimes') (ei in Past Descriptions; past habitual states of affairs)
- necessary occurrence ('always') (epeí in Past Descriptions; past habitual states of affairs).

There is, thus, first of all no common tense value, since optative clauses may refer to past, present, or future. Within the category Past Descriptions the same situation applies as with eán/epeán in Non-past Descriptions: both ei and epeí-clauses have a habitual value, which is, again, conveyed by the discourse type, and are automatically characterized by the optative. The semantic differences are, thus, again connected with the different conjunctions, and not with the mood. On the other hand,

the optative with present, and, especially, future reference, has a semantic value of its own, since it competes with clause types characterized by other moods.

Here, too, it cannot but be concluded that the three values given above cannot be brought under a common semantic denominator.³⁶ Note especially the non-relevance of the value 'potentially realizable' for habitual states of affairs.³⁷

2.5.2. Aspect

With the exception of future forms, Greek verb forms are marked for aspect. I refrain from discussing here the various aspectual values in detail, since they are not directly relevant for the semantic values discussed in sections 2.1. through 2.3. Suffice it to say that aspectual differences are operative in all temporal clauses, since they show an opposition between present stem forms and aorist stem forms, expressing non-closedness/simultaneity and closedness/anteriority, respectively. This may be illustrated by examples (36) and (18) (simultaneous present subjunctives), (37) and (38) (anterior aorist subjunctives) and (40) (anterior aorist indicative). As for conditional clauses, the situation is partly different, especially with indicative clauses, both indeterminate and counterfactual ones. With these, the consequence may, generally speaking, have any temporal relationship with the antecedent. Compare, by way of illustration, the English example If John is in Italy, he has escaped unnoticed/he must be in Rome by now/he will certainly go to Greece as well.³⁸ Similar phenomena occur in Greek, which means that, with respect to indeterminate and counterfactual clauses, the common aspectual values of e.g. imperfect and aorist indicative do not apply. With conditional clauses having subjunctive or optative forms, however, the aspectual differences are fully operative. Thus, the aorist subjunctive in (34) expresses anteriority.

Simplifying the issue somewhat one might say that notions

like simultaneity and anteriority are relevant in the real world (: epeí, epeán, eán) and in a future world that is envisaged as realizable (: epeán, eán, ei + opt.), whereas they are less or not at all relevant in worlds that are beyond realization (counterfactual) or whose realization is indeterminate.³⁹

3. FORMAL REPRESENTATION IN FUNCTIONAL GRAMMAR

The formal representation of the various clauses discussed above within the framework of Functional Grammar can be taken care of in an adequate way by using, on the one hand, a set of predicate operators and, on the other, the semantic function Condition and the pragmatic function Theme. Since, however, the different uses of conditional and temporal clauses are crucially connected with the type of discourse in which the clauses occur, first of all a discourse operator will be needed. Depending on the discourse type a variable number of other operators is needed. The general representation of Theme conditional clauses - I shall confine myself to these - may be given the following form:

(a) **DISC(((ILL){Mod}{Tense}{Aspect})(Predication))^{CONDITION}THEME**

These operators may have the following values:

DISC(OURSE) = Interactive Speech

Narrative

Descriptions - present

- past

Author's comment

ILL(ocutionary operator) = Declarative

Mod(ality) = Indeterminate

Plausible

Possible

Impossible

Tense = Past (including habitual past)

Present (including habitual present)

Future

Aspect = Closed

Non-closed

{ } indicates that the operator concerned may be optional or redundant.

Note that illocutionary functions other than Declarative are excluded. The conditional and temporal clauses involved cannot be used, in fact, with an interrogative nor with an imperative function. See the discussion in section 1, where it was argued that these clauses, being Themes, are set apart from the main predication. This means that in a sentence like If you think it's so boring here, why don't you just go away (= ex. (7)) the function Interrogative is solely relevant for the main predication, the conditional clause being declarative. The Illocutionary operator Declarative may therefore be considered redundant, since conditions (or at least, Theme conditions) are always declarative. On illocutionary functions in general see Dik (forthc.: ch. 3, esp. 3.6).

By way of illustration I will give the specifications for some clauses belonging to the discourse types Interactive Speech and Description.

Consider again sentence (15):

- (15) su dè ei prothuméai Massagetéon peirethênai (phére mókhthon tòn ékheis áphes) ('If you desire to essay the strength of the Massagetae (come on then, quit your present labour ...'))

For the underlying representation of the conditional clause the following operators are relevant. The discourse type is Inter-

active Speech, the modality of this type of conditional clause is Indeterminate, the Tense value is Present, the semantic function Condition and its pragmatic function Theme. This can be schematized as follows:

(b) $\text{IntSp}(\text{IndetPr}(\text{prothumeísthai}_V(\text{dlx}_i:\text{sú}(\text{x}_i)_{\text{ExpSubj}}))_{\text{COND}})_{\text{THEME}}$

Application of the expression rules gives the following result:

$\text{Int}(\text{eractive}) \text{ Sp}(\text{eech}) \rightarrow$ a number of characteristics, e.g. the obligatory presence of a speaker and an actively participating addressee; linguistically, a preponderance of imperatives, wishes, future and present forms, in short, of non-past verb forms; adhortative particles etc.

$\text{Indet}(\text{erminate})\text{Pr}(\text{esent}) + \text{Predication} \rightarrow$ present indicative 2nd pers. sing.: *su prothuméai*

$\text{COND}(\text{ITION}) \rightarrow \text{ei}$

$\text{THEME} \rightarrow$ sentence-initial position

It should be noted here that no Aspect operator is needed: the -actual- present is inherently non-closed (in Greek). Also, it may be doubted whether the Modality operator Indeterminate is really needed, since a condition having present reference in Interactive Speech always triggers the value Indeterminate.

Finally, a phonetic rule will eventually ensure the correct declarative properties, e.g. the appropriate intonation. Recall that all conditional Themes are declarative.

Next, consider sentence (34):

(34) *èn nikethêis (máthe hósa agathà apobalééis)* ('But if you are conquered - which I think is plausible - (then see how many good things you will lose)')

The following operators are relevant. The discourse type is, again, Interactive Speech, the modality of the conditional is Plausible, the aspect value is Closed, and semantic function and pragmatic function are, again, Condition and Theme, respectively. When schematized this yields:

(c) IntSp(Plausible Closed(nikāny('you')_{GoalSubj})COND)THEME

By applying the expression rules we arrive at:

Int(eractive) Sp(eech) -> the same characteristics as with (b)
above

Plausible, Closed + Predication -> passive Aorist subjunctive
2nd pers. sing.: nikethêis +
ân

COND(ITION) -> ei

THEME -> sentence-initial position

I should add that a word-order rule (clitic placement) and a phonological rule will eventually ensure that the correct form of the conjunction (èn) is arrived at. Further, no Tense operator is needed since the operator Plausible inherently has future reference. As for the illocutionary function Declarative see the remarks on (a) above.

Finally, consider sentence (41):

(41) èn dè aporragêi (tò ploïon oíkhetai pherómenon) ('If the
rope breaks (the ship is carried away)')

The following operators are relevant. The discourse type is Non-past Description, the aspect value is Closed, the semantic function is Condition and the pragmatic function Theme. Compare the following schema:

(d) Non-pastDescr(Closed(aporrégñusthaiy('it')_{ProcSubj})COND)THEME

Application of the expression rules yields:

Non-past Description -> a number of syntactic and semantic characteristics, notably the presence of generic present indicatives, e.g. in expressions of the form: 'it is a property of X to do Y', or 'X has the habit of doing Y'.

(Closed + Predication)COND -> aorist subjunctive 3rd pers.sing. + án (see below)

COND -> ei

THEME -> sentence-initial position

Note that no other operator than Aspect (: Closed) is needed: in the given discourse type the tense is (generic) present and the mood for conditional clauses, just as for many other embedded clauses, notably temporal and relative ones, is obligatorily subjunctive + án. The feature COND on the predication is the formal indication that an embedded clause is involved. Here, too (cf. (c)), a word-order rule and a phonological rule will ensure the correct form of the conjunction (èn). On the illocutionary function, see, again, above.

The 'contingency' interpretation of these clauses (cf. section 2.3.1.1) is not formally encoded but rather is the result of the interaction between discourse type and clause type.

4. GENERAL CONCLUSION

The main results of this paper can be summarized as follows. Cross-linguistically, conditional and temporal clauses show a strong tendency to appear in sentence-initial position. This phenomenon presents a problem for Functional Grammar in its current form, since subordinate clauses should in

principle be placed as far right as possible in the sentence, according to the principle of the Language Independent Preferred Order of Constituents, which predicts that constituents are placed in increasing order of complexity, subordinate clauses having the last position. In the first section of this paper it is argued, on the basis of data taken from Dutch and Classical Greek, that this problem can be accounted for by assigning the pragmatic function Theme to these clauses. It can be shown, in fact, that these clauses, when having sentence-initial position, in all respects satisfy the criteria used in FG for defining Theme constituents. Being Themes, conditional and temporal clauses fall outside the predication proper and are, thus, not subject to the rules of LIPOC. Assigning Theme function to these clauses has the added advantage of allowing a rather elegant explanation of the differences as to tense and mood between subordinate and main predication.

The tense and mood properties of conditional and temporal clauses in Classical Greek are the subject of the second section of this paper. Classical Greek has a both morphologically and semantically rather rich system of such clauses. It is argued that the various semantic values of the different clause types are to a large extent not conveyed directly by the moods and tenses, but by the interaction between the moods and tenses and the discourse type in which the clauses occur. Thus, the semantic value Plausible of subjunctive conditional clauses crucially depends on their occurring in the discourse type Interactive Speech. In the other discourse type in which these subjunctive clauses occur, viz. Descriptions, this value is shown to be irrelevant. In a similar way the interaction with discourse type is investigated for the other clause types. On the basis of this investigation a classification is made of the semantic values of all clauses involved; also, an assessment is presented of the precise contribution of the mood and tense to a given value.

Section three presents a formal representation of conditional clauses within the framework of FG. A general representation

of these clauses, which makes use of, on the one hand, a discourse operator and the predicate operators Tense, Modality and Aspect and, on the other, the semantic function Condition and the pragmatic function Theme, is followed by an investigation into the exact role of a given operator in the actual representation of a number of clauses. It is shown, on the basis of the results of section two, that these operators are of unequal importance in this representation.

Notes

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1. E-ng also appears in Tails (Reesink 1983: 225).
2. According to Reesink there is a kind of 'comma intonation' after e-ng. He does not specify whether this feature is also present in sentence (1).
3. A possible world which 'differs ... minimally from the actual world', in Stalnaker's words (1975: 169). Of course, much more could be said about the notion 'possible world', and also about the complicated relationship between 'hypothesis' and 'condition', but this would fall outside the scope of this paper. Suffice it to say that not all hypotheses are conditions - cf. e.g. If you're thirsty there is some beer in the fridge - nor all conditions hypotheses, for which cf. below, sections 2.3.1.1. and 2.3.2.1.
4. The main clause exhibits the VS order which is normal after sentence-initial constituents. Notice, however, that with nominal Themes this inversion is not common. The normal order is SV, cf. Wat Jan betreft, die is zojuist vertrokken ('As for John, he just left'). There are also conditional clauses that have a main predication of this type, e.g.: Als je dorst hebt, er is bier in de ijskast ('If you're thirsty, there's some beer in the fridge').
5. In the transliteration of Greek vowel length is only indicated for certain verb forms, when this is a distinctive feature of the verb form in question. The translations of Greek examples are those of the Loeb Classical Library.
6. Notice that causal clauses are very doubtful Theme candidates: ??Omdat Jan thuis bleef, ben jij daarom ook thuis gebleven? ('Because John stayed at home, did you stay at home, too, for that reason?'). This holds even stronger for aangezien-clauses: *Aangezien Jan thuis bleef, ben jij daarom ook thuis gebleven? ('Since John stayed at home, did you stay at home, too, for that reason?'). Temporal-causal

nu ('now that') clauses, on the other hand, are not excluded from Theme-position: Nu Jan thuis blijft, blijf jij nu ook thuis? ('Now (that) John is staying at home, are you staying at home as well?'). Locative clauses, too, are suitable Themes, cp.: Waar jullie wonen, is daar veel verkeer? ('Where you live, is there much traffic there?'). These differences are also manifest when these clauses are given Tail position. See example (23). See also note 7.

7. As opposed to: Zijn jullie weggegaan toen Jan vertrok of toen het begon te regenen? ('Did you go away when John left or when it started to rain?'), with no pause after weggegaan. Here, both the content of the main predication and that of the subordinate clauses is presupposed. Notice that, again, reason clauses may not appear in this Tail position: *Zijn jullie weggegaan, omdat Jan vertrok? ('Did you go away, because John left?'). This sentence is only possible without a pause after weggegaan, in which case the omdat clause becomes the focus of the question. Reason-clauses, then, are not acceptable as presupposed elements in questions. Their behaviour in declarative sentences in this respect is not altogether clear. In the sentence Omdat Jan vertrok, zijn wij ook weggegaan ('Because John left we left as well') and especially in Aangezien Jan vertrok, zijn wij ook weggegaan ('Since John left, we left as well') the information of the subordinate clause would somehow seem to be presupposed. There is, however, always a strong subjective element in causal connections. Such connections inherently rest upon intellectual operations (on 'reasoning'); usually, therefore, they have no correlate in the extra-linguistic world - except, of course, in strictly physical causality complexes -, unlike time and place constituents. To put it differently, 'John's leaving' is situated at some point of the time continuum (and somewhere in this world) and as such it may function as the domain of or the framework for other states of affairs ('When John left ...'). It is, of course, not situated in some 'reason-world', simply because there is no such thing as objective causality. This means that John's leaving cannot be presented as a presupposed 'objective' causal framework for other states of affairs.
8. Cf. Greenberg's universal 14: 'In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages' (1966: 84). Compare also Lehmann (1977: 234 ff.). For temporal clauses something similar applies. These features are connected with iconicity phenomena - the order of the clauses reflects the order of events - but also with anaphora, especially in the case of temporal clauses. These usually refer back to earlier

information and tend, thus, to be placed as closely as possible to that information. Observe, in this connection, that Themes consisting of an NP, also, usually refer back to earlier information. As for John can be used meaningfully only when John belongs to the 'shared knowledge' of speaker and hearer. On this notion cf. Prince (1985: 66).

9. Compare Dik (1978: 192-3), who states that Themes, having the so-called P2-position in the sentence, are not sensitive to LIPOC.
10. I should add that it is doubtful whether conditional clauses are ever really full satellites. Observe, in this connection, that there is no appropriate question-word which may elicit these clauses.
11. With, indeed, the possible exception of counterfactuals.
12. This division in some respects resembles that of Longacre and Levinsohn (1978: 103-104), who distinguish 'narrative discourse' (= my 'narrative'), 'procedural discourse' (= 'descriptions'), 'behavioral discourse' (= + 'interactive speech') and 'expository discourse' (= + 'author's or speaker's comments').
13. In view of examples like (21) this position should probably be slightly modified: temporal conjunctions would seem to be 'presupposition-triggers' if they have Theme function.
14. The type 'speaker's or author's comments' may be considered a special form of interactive speech; it will be dealt with together with the latter. - I give only the most common verb forms. In particular forms of the perfect stem, which are very rare, are not taken into account. I should add here that with many of the clauses discussed below 'aspect', too, is a relevant category. Thus, present stem forms in principle designate a 'non-closed' state of affairs, and aorist stem forms a 'closed' state of affairs, which on the sentence level may lead to a simultaneity and to an anteriority reading, respectively. Since aspect, however, is not directly relevant for the semantic distinctions between these clauses in terms of 'likelihood of realization', it will be left out of the discussion below. I will come back to it briefly in section 2.5.2.
15. There is, thus, no 'disjunctive situation'. Note in this connection that whereas an ei-clause may be contrasted with another ei-clause (ei mèn ... ei dé 'if, on the one hand ..., but if, on the other, ...'), in situations which lend themselves to assuming alternative 'possible worlds', an epei-clause (or a now that-clause, for that matter) may not. If one were to continue, following an epei-clause (or

now that-clause) with another, contrastive, epei (now that-) clause, one would completely contradict oneself, since one would not accept one's own presuppositions: *now that, on the one hand ... , but now that, on the other ...

16. If no ambiguity can arise, a counterfactual imperfect may also refer to the past, e.g. in Herodotus 3,25,5. The impf. would seem to be preferred to the aorist to establish a relationship of simultaneity between the state of affairs of the subordinate clause and that of the main clause.
17. Cf. Brunel (1980: 236), who notes that 'disjunctive situations' are rare with ei + optative. Cf. also note 18. The difference is sometimes exploited pragmatically in a rather subtle way. A case in point is example (28). The speaker, who knows beforehand that he will not be able to meet the wishes of all persons present, could have used a counterfactual conditional: ei hoíon te ên 'if it were possible' (note that the difference is lost in English, as it is in Dutch and other languages). By using a potential optative, however, he suggests that there is in principle a possibility to meet their wishes, and it is only in the second resort that he invalidates this suggestion by explicitly stating that there is, in reality, no such possibility. For a more detailed discussion of the relationship between potentiality and counterfactuality see Wakker (forthc.).
18. Observe that there is no temporal counterpart with epei to these ei-clauses in Interactive Speech. Epei-clauses having an imperfect or aorist indicative belong typically to the discourse type Narrative (see 2.2.) and, thus, to the 'real' world. Observe also that counterfactual clauses have a rather special position among conditional clauses in that they do not involve a 'disjunctive situation' (cf. note 15), since the state of affairs cannot be realized at all. This characteristic could also be captured in terms of presupposition: ei ... prosêtheken (ex. (30)) presupposes 'he has not added this'. On counterfactuals as 'presupposition-triggers' see also Levinson (1983: 184).
19. On the factors determining the temporal reference of ei + opt.-clauses see Wakker (forthc.).
20. Pragmatically, these sentences may, again, have a dissuasive function; cf. 2.1.3.1.
21. Epei + future indicative does not occur. Since this tense is not marked aspectually, it is not suited to express relationships of simultaneity and anteriority. See further section 2.5.2.

22. There is thus a certain asymmetry in the system of conditional and temporal clauses: whereas ei and epei/hôte + optative would seem to be in free variation, ean and epeân are, rather, combinatory variants.
23. There is, thus, again (cf. note 15) no disjunctive situation; and whereas ei-clauses may, again, be contrasted with other conditional clauses, e.g. when the possible effects of a certain action are assessed (cf. ex. (35)), epeân-clauses may not. Using structures like epeân mèn ... epeân dé 'when/after ..., but when/after, on the other hand ...', would, again, amount to not accepting one's own presuppositions. Thus, in (36), the realization of the state of affairs stíkhein 'go' is presented as certain, and the speaker could not possibly have continued with 'but when she does not go ...'.
24. It will turn out, in fact, that the speaker's confidence is mistaken: he will not return. - Clauses as in (39) - and this would seem to hold also for their equivalents in other languages - can be explained on psychological grounds: the use of a conditional clause might be interpreted as a sign of weakness, or as 'tempting the gods'.
25. Notice that in Interactive Speech Herodotus has 236 conditional clauses (ei + fut. indic.: 39, én + subj.: 152, ei + subj. only: 6, ei + optat.: 39), as against 47 temporal clauses (epeân + subj.: 34, epeidân + subj.: 2, hótan + subj.: 11).
26. The rope may of course also not break; in fact, in the situation described this will be the rule. We have, then, again a 'disjunctive' situation.
27. Examples (42) and (43) are taken from Van der Auwera (1983: 301). He discusses them in a slightly different way; he uses the notion 'contingency' in connection with (42) (and 'indeterminacy' in connection with (43)), contingency being defined as 'the middle ground between necessity and impossibility'. Coldness is, thus, a contingent feature of the Berlin climate. As Van der Auwera observes, the same differences are manifested by: (i) It is possible for milk to turn sour overnight and (ii) It is possible that the milk turned sour last night. The former expresses contingency, or, in my terminology, entails that milk sometimes turns sour overnight.
28. In principle, Engl. if and when would seem to differ in a similar way, when used in a Non-past description. Observe that the difference between éân and epeân (and between if and when) could perhaps also be described in terms of

quantification. In the given discourse type eán involves what may be called 'partial' or 'restricted' quantification, while epeán rather involves universal quantification. See also Fabricius-Hansen and Saebø (1983: 19).

29. Notice that 'It could be very cold in that hotel' entails, again, that it was sometimes very cold in that hotel.
30. In the text ei/epeí + optative are treated as being simply the past parallel to eán/epeán + subjunctive. While this in principle is correct, there is nevertheless a difference. ei/epeí + optative can often be considered part of a narrative, referring to iterative events, as opposed to the single events expressed by epeí + past indicative that form the backbone of a narrative. This is only to be expected, since, after all, ei/epeí + optative refers to the past, just as epeí + past indicative. Eán/epeán + subjunctive, on the other hand, occur strictly in descriptions; there is, of course, no such thing as 'present' narrative. - On the question why other conjunctions are preferred to epeí in this discourse type see Rijksbaron (1980: 144, n. 21).
31. Note that languages with conditional clauses expressing plausibility of realization of the condition seem to be rare. Swahili probably provides a parallel to Greek; cf. Salomé (1983: 315).
32. Observe that English if may be used in a similar way, as in: 'There were also social difficulties. If the Tates had Danielle to a party, they could not have Leonard'. This use is generally ignored in English grammars, as it is in the, otherwise very detailed, monograph by Lauerbach (1979).
33. On the non-occurrence of the future indic. in temporal clauses see note 21.
34. But note the common value 'non-past'. See also note 36.
35. Grammars of Ancient Greek, to be sure, show a marked tendency to give a single label to all uses of the subjunctive in our clauses, thereby blurring the semantic differences. This especially holds for eán; see e.g. Kühner-Gerth (1898-1904: 1,250) and Schwyzer-Debrunner (1950: 684). Kühner-Gerth (1898-1904: 2,474) even go as far as flatly denying that there are any differences between ei + future indicative and eán + subjunctive. They all fail to distinguish the divergent values of eán and epeán + subjunctive with habitual states of affairs: both are considered to express simple iteration. The German grammars of Greek may have been influenced by the situation in their own language, where - just as in Dutch - the difference between

'if' and 'when' is not formally indicated, wenn having both 'meanings'. On some problems connected with differentiating between the two readings of wenn see Fabricius-Hansen and Saebø (1983).

36. I should add that this is perhaps too strict a standpoint. In spite of the absence of a fixed tense value, it might be argued that all optative clauses have in common that they express what may be called 'remote relevance', since they belong either to a past world, or to a world that is only potentially realizable, and are thereby not of immediate relevance to the actual world of the speaker. By the same token, subjunctive clauses might be said to express 'current' or 'actual relevance', since they belong either to the present world or to a world that may very well become reality within a short time. Further research is needed, also in the other uses of the moods.

37. Again, the grammars tend to attribute one semantic value to all uses of the optative, viz. a potential one. Cf. Kühner-Gerth (1898-1904: 1,254; 2,476).

38. Such clauses are very much like the conditionals of material implication of the logicians; cf. Allwood et al. (1977: 38).

39. It will be recalled that conditional and temporal clauses were discussed together 'because intuitively they would seem to share a number of features' (cf. the Introduction). Observe, in this connection, that this 'sharing some features' applies especially to conditional and temporal clauses in Descriptions and to clauses that occur in Interactive Speech and have a subjunctive or optative verb. With all these clauses the notions 'simultaneity' and 'anteriority' are relevant. With regard to the group occurring in Interactive Speech, moreover, it could be said, to put it somewhat crudely, that many conditional clauses are potential temporal clauses. Consider - to take an English example - a sentence like If you turn around, you'll see your father. If the condition is fulfilled, the resulting relationship can only be expressed - e.g. in a narrative - by When he turned around, he saw his father. Conditional clauses may, of course, also be potential causal clauses, as in the case of If you go away, you'll be punished. Interestingly, such 'cause-effect' implications would seem to be rare with Greek epeán-clauses having future reference, whereas they are not uncommon with eán-clauses. Further research is needed in this field.

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